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(71) Applicant: **PETROLITE CORPORATION**  
**St. Louis Missouri 63119-1897 (US)**

(72) Inventor: **Falker, Thomas J.**  
**Fenton, Missouri 63026-7017 (US)**

(74) Representative: **Seaborn, George Stephen**  
**c/o Edward Evans & Co.**  
**Chancery House**  
**53-64 Chancery Lane**  
**London WC2A 1SD (GB)**

(54) **Methods for testing the fouling tendency of FCC slurries**

(57) A method for analyzing the fouling tendency of a bottoms slurry in a fluidized catalytic cracking unit, the method comprising the following steps:

(a) subjecting a sample of the bottoms slurry to a selected increased pressure above atmospheric pressure and to a selected temperature corresponding to a bottoms slurry temperature at which the bottoms slurry is proposed to be maintained in the fluidized catalytic cracking unit;

(b) maintaining the sample at the selected increased pressure and selected temperature for at least about two hours;

(c) cooling the sample and reducing the pressure;

(d) homogenizing the sample to produce a homogenized sample;

(e) extracting relatively higher molecular weight materials from the homogenized sampling and

(f) analyzing the extracted relatively higher molecular weight materials for at least one equality

wherein the steps (e) and (f) are carried out by:

(g) adding from about three to about five parts by weight of a solvent composition to one part by weight of a measured amount of the homogenized sample, thereby to form a liquid phase containing relatively low molecular weight slurry components and a precipitate phase containing relatively high molecular weight slurry material as a precipitate;

(h) separating out the precipitate; and

(i) analyzing the precipitate for at least one quality.

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# EUROPEAN SEARCH REPORT

Application Number  
EP 96 30 0541

| DOCUMENTS CONSIDERED TO BE RELEVANT   |   |   |  |
|---|---|---|--|
| Category  | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim   | CLASSIFICATION OF THE APPLICATION (Int.CI.6) |
| A   | US 4 822 475 A (MCDANIEL ET AL.)<br>* the whole document *                    | 1,15,17   | G01N33/28<br>G01N17/00                       |
| A   | EP 0 241 233 A (EXXON CHEMICAL PATENTS INC.)<br>* the whole document *        | 1,15  |  |
| A   | DE 28 20 123 A (THE BRITISH PETROLEUM CO., LTD.)<br>* the whole document *    | 1,15  |  |
| A   | GB 1 564 757 A (THE BRITISH PETROLEUM CO., LTD.)<br>* the whole document *    | 1,15  |  |
|   |   |   | TECHNICAL FIELDS SEARCHED (Int.CI.6)         |
|   |   |   | G01N   |
| The present search report has been drawn up for all claims  |   |   |  |
| Place of search<br>THE HAGUE  |   | Date of completion of the search<br>27 February 1998  | Examiner<br>Bosma, R                         |
| CATEGORY OF CITED DOCUMENTS   |   | T : theory or principle underlying the invention<br>E : earlier patent document, but published on or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family; corresponding document |  |
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